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DECLARATION

In the matter of U.S. Patent Application Ser. No. 09/901,595 in the name of Shigeru NAKANO

I, Mariko ENDO, of Kyowa Patent and Law Office, 2-3, Marunouchi 3-Chome, Chiyoda-Ku, Tokyo-To, Japan, declare and say:

that I am thoroughly conversant with both the Japanese and English languages; and,

that the attached document represents a true English translation of Japanese Patent Application No. 2000-210848 filed on July 12, 2000.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: March 17, 2006

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Mariko ENDO

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JAPAN
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[Document Type] SPECIFICATION 2000-210848

[Title of Invention] COOKING INFORMATION AND FOOD INFORMATION DISTRIBUTION AND MANAGEMENT SYSTEM

[Claims]

[Claim 1]

A cooking information distribution and management system comprising a product information database constructed by accumulating pieces of information about cooking, nutritive ingredients, calorie and weight of a processed food, and an ID code given to each processed food for identification thereof, characterized in that

when one processed food is cooked, necessary cooking information can be retrieved from said product information database by using the ID code given to the processed food as a key to inquire of said product information database for said information.

[Claim 2]

A cooking information distribution and management system comprising a product information database constructed by accumulating pieces of information about cooking, nutritive ingredients, calorie and weight of a processed food, and an ID code given to each processed food for identification thereof, characterized in that

when one processed food is cooked by an electric cooking device, necessary cooking information can be retrieved from said product information database by using the ID code added to the processed food as a key to inquire of said product information database for said information, and cooking conditions are set in accordance with said information.

[Claim 3]

The cooking information distribution and management system according to claim 1 or 2, characterized in that

Two-dimensional barcodes are marked as ID codes on packages of processed foods.

[Claim 4]

The cooking information distribution and management system according to

claim 1 or 2, characterized in that

ID codes are recorded on IC chips of noncontact IC tags attached to packages of processed foods.

[Claim 5]

The cooking information distribution and management system according to any one of claims 2 to 4, characterized in that

said electric cooking device inquires of said product information database for said information via a telephone line or Internet.

[Claim 6]

The cooking information distribution and management system according to claim 2 or 5, characterized in that

said electric cooking device is a microwave cooker, a microwave oven or a microwave cooker oven.

[Claim 7]

A food information distribution and management system comprising a product information database constructed by accumulating pieces of information about nutritive ingredients, forbidden ingredients, calorie and weight of a processed food, and an ID code given to each processed food for identification thereof, characterized in that

when one processed food is used, necessary food information can be retrieved by using said ID code added to said processed food as a key to inquire of said product information database for said information.

[Claim 8]

The food information distribution and management system according to claim 7, characterized in that

two-dimensional barcodes are marked as ID codes on packages of processed foods.

[Claim 9]

The food information distribution and management system according to claim 7, characterized in that

ID codes are recorded on IC chips of noncontact IC tags attached to packages

of processed foods.

[Claim 10]

The food information distribution and management system according to claim 7, characterized in that

refrigeration conditions of foods are determined on the basis of obtained food information.

[Claim 11]

The food information distribution and management system according to claim 7, characterized in that

a calorific value and necessary nutritive ingredients are calculated on the basis of obtained food information.

[Claim 12]

The food information distribution and management system according to claim 7, characterized in that

whether or not foods are proper to each patient in a hospital is determined on the basis of obtained food information.

[Detailed Description of the Invention]

[0001]

[Field of the Invention]

The present invention relates to a system for distributing and managing cooking information and food information.

More specifically, the present invention provides a system for automatic and intelligent cooking of processed foods using electric cooking devices including microwave cookers and ovens or for the selective use of general foods.

The term intelligent cooking used herein signifies provision of means for confirming and managing various pieces of information about processed foods, such as nutritive ingredients, calories, weights, cooking methods, cooking times and the like.

[0002]

[Description of the Related Art]

The requirement of the food market for high-degree information contents about foods for cooking and processed foods has advanced progressively in recent years and there is a limit on capacity of information of a conventional package.

Such a limit on fulfillment or capacity of the package information is due to the following condition of social background.

(1) The contents of processed foods have been progressively enhanced with the expansion of the processed food market and it is desired that the types and contents of processed foods can be clearly understood.

(2) An advanced medical technology relating to adult diseases requires a diet and dietary cures, and information necessary for a diet and dietary cures.

(3) Aging society with an increasing number of aged people requires easily readable indication.

(4) There is a limit on enlargement of indication areas on packages for conformance to the PL Law.

On the other hand, there is a problems in that information necessary for the automation of cooking and nourishment management has not been unified. Furthermore, effective interfaces for information exchange have not been available.

[0003]

The followings are concrete problems residing in information indication on conventional packages.

(1) When a person cooks a processed food, such as a frozen food or a chilled dish, by an electric cooking device, the person needs to read visually instructions specifying a heating method and heating time indicated on the package and to set the electric cooking device for cooking, however, since only a small area is available on the package for indicating the instructions, there is a problem in that the instructions are indicated in small letters, which is difficult for a farsighted person to read such small letters.

Moreover, there is a problem in that a blind person is unable to read the instructions and needs some help.

When setting an electric cooking device for cooking, it is troublesome to determine a heating time selectively according to the output wattage of the electric cooking device, it is possible that the electric cooking device is set for a wrong heating time in some cases to heat the processed food excessively or insufficiently, and it is possible that a wrong heating mode is selected (for example, a range-heating mode is selected when an oven-heating mode must be selected and vice versa).

[0004]

(2) Dieticians manage meals in hospitals when nutrient intake of a patient is limited, however, different patients need different ways of management individually and the qualities of different diet meals cannot be confirmed when distributing the diet meals to patients.

Such management in general homes is a serious problem; people need to consult a nutritive composition table and need complicated management.

[0005]

[Problems to be Solved by the Invention]

Such problems arise when letters expressing many pieces of information are printed on the packages because contradictory conditions, i.e., printing many pieces of information in a limited area on a package and printing many pieces of information in letters of a typeface large enough to facilitate reading the information.

Such difficulties will become more serious with the progressive increase of kinds of information and the enhancement of the quality of information, and some measures must be taken.

[0006]

Accordingly, it is an object of the present invention to provide a system used for cooking by constructing database storing unified food information including information about cooking information, nutritive ingredients, calories, weights and the like in a center (food data supplier or the like), and an ID code is given to each processed food for identification thereof, a two-dimensional barcode is marked as an ID code on an indication area of a package or electrically recorded an IC chip of a noncontact IC tag (sometimes generally called "radio IC tag", "noncontact IC", "noncontact IC label",

"noncontact data carrier" or the like), and various pieces of information related to the processed food are retrieved, if necessary, for use in cooking by using the ID code as a key to inquire of the center for the information.

[0007]

[Means for Solving the Problems]

The first aspect of the present invention to solve the above problems is a cooking information distribution and management system comprising a product information database constructed by accumulating pieces of information about cooking, nutritive ingredients, calorie and weight of a processed food, and an ID code given to each processed food for identification thereof, characterized in that, when one processed food is cooked, necessary cooking information can be retrieved by using the ID code added to the processed food as a key to inquire of the product information database for the information. The system thus constructed is capable of retrieving accurate cooking information about processed foods.

[0008]

The second aspect of the present invention to solve the above problems is a cooking information distribution and management system comprising a product information database constructed by accumulating pieces of information about cooking, nutritive ingredients, calorie and weight of a processed food, and an ID code given to each processed food for identification thereof, characterized in that, when one processed food is cooked by an electric cooking device, necessary cooking information can be retrieved by using the ID code added to the processed food recognized by the electric cooking device as a key to inquire of the product information database for the information, and cooking conditions are set in accordance with the information. The system thus constructed is capable of retrieving accurate cooking information about processed foods.

[0009]

The third aspect of the present invention to solve the above problems is a food information distribution and management system comprising a product information database constructed by accumulating pieces of information about nutritive ingredients, forbidden ingredients, calorie and weight of a processed food, and an ID code given to

each processed food for identification thereof, characterized in that, when one processed food is used, necessary cooking information can be retrieved by using the ID code added to the processed food as a key to inquire of the product information database for the information. The system thus constructed is capable of retrieving accurate cooking information about processed foods.

[0010]

[Description of the Preferred Embodiment]

A cooking information distribution and management system and a food information distribution and management system in a preferred embodiment according to the present invention will be described with reference to the accompanying drawings.

Fig. 1 is a view of assistance in explaining a cooking information distribution and management system according to the present invention.

Referring to Fig. 1, numeral 1 denotes a center which manages cooking information and food information stored in a product information database 11.

Numeral 2 denotes a food processing plant which produces and ships processed foods 21, and indicates food information on food packages 211.

More concretely, each processed food 21 is packed in the food package 211, on which predetermined information is marked and necessary information in addition to an ID code, is stored in a two-dimensional barcode marked on the package or a noncontact IC tag 213 attached to the package.

In addition, information indicated on the food package 211 includes an alternative means of a label indicating the information thereon.

[0011]

Matters indicated on the food package 211 or a label (not shown) include kinds and nutritive ingredients of raw materials, calorific value, cooking methods, cooking time, time limit for relishing, production date and the like, and data stored in the product information database 11 includes at least those indicated on the package and the label, and other relevant information is more extensively stored in accordance with the ID code.

Principally, the relevant information is food information including cooking information. However, these pieces of information are not entirely different from each

other and the ranges thereof overlap each other; the former relates principally to the cooking of the processed food, while the latter relates principally to general information except cooking information about the processed food, such as the forbidden ingredients of the processed food, additives, producing conditions and the like.

[0012]

Referring to Fig. 1, the noncontact IC tag 213 is attached to indicate conditions recorded the IC tag in addition to information identical with that indicated on the food package 211 and the label, additional information and at least an ID code.

However, as aforementioned, an ID code may be recorded a barcode or a two-dimensional barcode marked on the package in addition to the noncontact IC tag.

An ID code must be attached to each processed food 21 for identification thereof. The reason is that the ID code is used as a key to retrieve cooking information and the food information from a center 1. Although it is preferable that the ID code including an unduplicated unique number is added to each package, one and the same ID code may be added to packages containing foods produced under the same processing conditions on the same day so far as production conditions and materials are the same.

[0013]

The contents of the information and the ID code indicated on the package 211 produced by the food processing plant 2 are recorded on the food database 11, and are managed by the center 1.

The food processing plant 2 is able to refer to the contents of the information stored in the food database 11 kept by the center 1 whenever need arises, and the center 1 is associated with many food processing plants and food makers for serving food information.

On the other hand, the center 1 provides necessary information in response to inquiries made by a consumer 3, a refrigerator 31 and an electric cooking device 32 possessed by the consumer.

[0014]

The processed food 21 shipped from the food processing plant 2 is distributed and bought by the consumer 3 from a retail shop. Usually, the bought processed food

is stored temporarily in the refrigerator 31.

The refrigerator 31 and the electric cooking device 32 read the ID code of the processed food, send the same through a network to the product information database 11 and inquire for cooking information and food information, such as a cooking method, cooking time (method of heating by the microwave cooker and time for which the food is to be heated), nutritive ingredients, calorie and the like.

[0015]

When the two-dimensional bar code represents the information about the processed food or the IC chip memory of the noncontact IC tag stores the information, the bar code reader or the noncontact IC tag reader/writer provided in the refrigerator 31 reads the food information and manages the time limit for relishing, proposes possible menus based on the contents of the refrigerator, performs inventory management, specifies deficient stock of foods and proposes foods to be purchased.

The time limit for relishing and the proposal of foods to be purchased are judged by the intelligence provided in the refrigerator 31 on the basis of the contents read by the reader, and are realized by being displayed on a liquid crystal display 312 and the like.

[0016]

Likewise, the consumer's electric cooking device, such as a microwave cooker 32, is also provided with the barcode reader or the noncontact IC tag reader/writer.

When the two-dimensional barcode represents or the noncontact IC tag 213 stores cooking information, the cooking information is read to automatically set a cooking time.

When the two-dimensional barcode does not represent or the noncontact IC tag 213 does not store cooking information and stores only the ID code, the barcode reader or the noncontact IC tag reader/writer reads the ID code and inquires of the database 11 kept by the center 1 cooking conditions for the information to retrieve the same.

The electric cooking device can currently be connected through the Internet to the database, and techniques for distributing information by a combination of techniques relating to high-speed Internet and domestic, digital, electric utensils have been studied

and it is expected that the demonstrative experiments are started before the year 2002 (Refer to Nippon Keizai Shinbun, May 17, 2000).

[0017]

Inquiries to the center 1 may be made by the electric cooking device 32 through a home server 33. The electric cooking device 32 communicates with the home server 33 by cable communications or wireless communications, and the home server is connected to the product information database 11 of the center 1 by an on-line network, such as the Internet, and information requested by the electric cooking device 32 is distributed from the product information database 11.

Manual inquiries can also be made. In this case, a function for displaying contents distributed from the product information database 11 with letters on the terminal included in the home server 33 may be provided.

[0018]

Cooking conditions can be automatically set based on the information retrieved by the electric cooking device 32 or can be manually set as well.

After predetermined cooking conditions are set, the microwave cooker 32 cooks the processed food. The processed food 21 is placed on a rotary dish and is heated for a set cooking time.

The processed food may be cooked by a complicated cooking method including steps of "heating by microwave heating and oven-heating", and "intermittent operation" so that the cooked processed food has the utmost taste and flavor by using a microwave cooker oven having the functions of both a microwave cooker and an oven instead of only heating by a microwave oven.

[0019]

The electric cooking device 32 must be provided with the reader capable of reading information from the two-dimensional barcode or the noncontact IC tag and must be capable of reading the ID code of the food. Further, since a switch or the like for setting an automatic cooking condition setting mode or a manual cooking condition setting mode, it is preferable that a display unit for displaying cooking conditions is provided.

However, a barcode reader or a noncontact IC tag reader may be placed outside or on the front door of the electric cooking device and may be manually read to ensure reading the ID code. In this case also, the read ID code is used as a key to retrieve information about the processed food from the network.

[0020]

The cooking information distribution and management system has been described, and the food information distribution and management system may be considered as a similar system.

Regarding food information, food information not directly related with cooking conditions is also used; such food information includes reference data on the nutritive ingredients and forbidden ingredients of foods, the calorific values of foods and foods inadvisable to patients in particular conditions of diseases.

Thus the accumulation of information about unprocessed foods will widen the range of use.

The information can be retrieved from the product information database 11 kept by the food information center 1 by the same system as the aforesaid cooking information distribution and management system.

[0021]

When necessary, information about the calorific value and nutritive ingredients may be displayed by a display unit installed outside the electric cooking device. When the date of expiry of the time limit for relishing is approaching or the time limit for relishing has expired, a warning to that effect can be displayed.

As for the food information, the display of the nutritive ingredients, the forbidden ingredients and the calorific value may help managing the food information. When distributing meals to patients in a hospital, the IC code can be read by a portable reader to determine whether or not the meals are proper to the patients.

Aged persons, poor-sighted persons and normal persons are able to cook foods easily and properly.

[0022]

<Product Identification Code Setting>

Next, the indication and the storage of the ID code will be described in more detail.

Food information and cooking information can be retrieved without any restriction through the network from the product information database 11. The IC tag 213 or the two-dimensional barcode attached to the processed food 21 includes at least the ID code. Further, it is desirable that minimum necessary information is indicated visibly on the package side as a backup means for use in the case of system down.

[0023]

The ID code may be represented by a bar code or the two-dimensional barcode, which can be read by the barcode reader.

A JAN (Japan Article Number) code, i.e., one of one-dimensional barcode, is used prevalently, represents a thirteen-digit number and is used for various purposes.

Generally, the first two digits form a country code, the following five digits represent the registered number of maker, the five digits represent an article number and the last one digit forms a check code.

Numerals represented by the bars of the bar code are indicated below the bars, respectively. A country code 49 indicates Japan and therefore, the first two digits are 4 and 9.

[0024]

Further, a physical distribution system uses an ITF code formed by putting a one- or two-digit distribution code in front of the JAN code. Therefore, if the JAN code is used, any other information needed by the system cannot be indicated and an article number is used in substitution for the ID code.

[0025]

Fig. 2 shows a food package provided with a two-dimensional barcode.

The two-dimensional barcode 212 is marked in a plane, the QR-Code, the Code 49 and Maxi Code are also two-dimensional barcodes, and the two-dimensional barcode is capable of representing about 400-digit alphanumeric characters. A considerably

large amount of information can be indicated in addition to the ID code.

However, any of the above two-dimensional bar codes is only for reading and there is a problem that no code can be added in the stage of distribution and retail after shipment.

The two-dimensional bar code 212 added to the food package 211 shown in Fig. 2 is a QR-Code.

[0026]

On the other hand, an IC chip has a recording capacity of 1,024 bits, is capable of recording 128 characters and is applicable to an ordinary label required to recording a minimum necessary information.

An IC chip having a recording capacity of several kilobits is capable of representing an amount of information greater than that of information that can be represented by the two-dimensional bar code. Moreover, additional information can be written to the IC chip and information recorded the IC chip can be erased. It is preferable to use a noncontact IC tag provided with a writable and erasable IC chip when the indicated price of an article is changed at the cashier or when the date of delivery is entered.

Thus, the system of the present invention uses the two-dimensional barcode or a noncontact IC tag provided with a read only memory (ROM) when the information is not changed after shipment, and the system uses a noncontact IC tag provided with a writable IC chip when additional information is added or the initial information is changed in the stage of distribution.

[0027]

Fig. 3 shows an example of the noncontact IC tag.

The noncontact IC tag 213 includes a plastic base 110 on which a coil pattern 112 is formed, and the coil and a capacitative element constitute a resonance circuit that sends out a signal upon the reception of a radiowave of a predetermined frequency. In the example shown in the drawing, the coil pattern 112 forms a jumping circuit with a conductive member 114 on the back surface of the base 110 and is connected to a bump on the back surface of an IC chip 111 with a coil connection terminal 112C. In the example shown in the drawing, the capacitative element is built in the IC chip.

The noncontact IC tag in the example shown in Fig. 3 is formed by bonding a metal foil, such as an aluminum foil or a copper foil to a surface of the plastic base and etching a pattern on the metal foil.

A frequency band of 125 kHz, 13.56 MHz, 2.45 GHz or 5.8 GHz (microwave) is used for communication with the reader/writer.

[0028]

The noncontact IC tag is not limited to the example shown in Fig. 3 but may be provided with simpler pattern. The noncontact IC tag may also be provided with a printed antenna pattern having the shape of two wings and printed, and an IC chip bonded with its terminals connected to respective wings. The antenna pattern can be formed on the food package 211 by printing the same directly in a black ink containing carbon or a conductive ink containing aluminum paste.

The noncontact IC tag 213 may be formed either on the inner or the outer surface of the package.

[0029]

<Barcode Reader>

A QR code scanner, i.e., a reader capable of instantly reading a large amount of data represented by a two-dimensional barcode in all directions. Even if the package is deformed or slightly soiled, data can be read from a position at a distance on the order of 1 m. Laser scanners of a portable type and a stationary laser-scanning type have been developed. The QR code scanner can also be placed in the microwave cooker.

[0030]

<Noncontact IC Tag Reader>

A noncontact IC tag reader, also called a scanner, sends a radiowave of a predetermined frequency to the noncontact IC tab and detects a response wave. Since the refrigerator stores many foods of many kinds, noncontact IC tags attached to those different foods must store food ID information different from each other.

When the refrigerator stores many processed foods and the many noncontact IC tags respond simultaneously, data collision may occur, however, various communication methods of sequentially communicating with a plurality of noncontact IC tags without

causing data collision, including a communication method disclosed in Japanese Patent Laid-Open No. 36623/1996, have been proposed.

[0031]

<Food Information and Cooking Information>

The contents of the cooking information and the food information will be described in more detail.

Generally, the following pieces of information are necessarily accumulated.

(1) Name and nationality of processed food maker, (2) item name of the processed food, (3) time and data of production, time limit for consumption and time limit for relishing, (4) ingredients (materials, additives, preservatives and such), (5) net weight, (6) cooking method and cooking time, (7) nutritive ingredients and their contents, (8) calorie, (9) distribution temperature range and the like.

[0032]

The food information and the cooking information is needed not only in the stages of manufacture by the makers and consumption by consumers but also in the stages of distribution and disposal.

Fig. 4 shows kinds of information needed at stages including a production stage, a consumption stage and a disposal stage. The production stage needs, in addition to the foregoing information, pieces of information about lot management, producing conditions, records of shipment and destination.

[0033]

The distribution stage needs (1) date of delivery and inspection, (2) tracking information, (3) temperatures during storing and transportation, (4) date of shipment and inspection and the like.

The retail stage needs, in addition to the information needed at the distribution stage, (1) information about retail price, (2) assistive information for persons with poor eyesight (such as audio information that is provided when a portable telephone is directed toward the product), (3) shoplifting preventing means and the like. Since the noncontact IC tag sends out an electromagnetic wave of a fixed frequency, shoplifting can be prevented by providing a gate.

[0034]

Further, it is preferable to provide the consumption stage with information about (1) disposal,(2) dust classification and (3) proposed menus in addition to the aforesaid information about keeping, stocking, amount, calorie, nutritive ingredients, forbidden ingredients, time limit for relishing and cooking conditions.

Similarly, it is preferable that the information for the disposal stage includes information about (1) means for detecting wrong classification and (2) recycling route.

[0035]

[Advantages of the Invention]

As apparent from the foregoing description, the food information distribution and management system of the present invention is capable of retrieving the necessary information freely from the database of the center by using the ID code recorded on the noncontact IC tag attached to the package or the two-dimensional bar code formed on the package, thus, even an indication area is limited on the package, cooking conditions for cooking foods and various necessary pieces of information can be obtained so far as the reader can recognizes the ID code.

[Brief Description of the Drawings]

[Fig. 1]

A view of assistance in explaining a cooking information distribution and management system according to the present invention.

[Fig. 2]

A view showing a two-dimensional barcode marked on a food package.

[Fig. 3]

A view of a noncontact IC tag.

[Fig. 4]

A view showing kinds of information needed at stages including a production stage, a consumption stage and a disposal stage.

[Description of the Reference Numerals]

1: Center

2: Food processing plant

3: Consumer

11: Product information database

21: Processed food

31: Refrigerator

32: Microwave cooker, microwave cooker oven or electric cooking device

33: Home server

211: Food package

212: Two-dimensional barcode

213: Noncontact IC tag

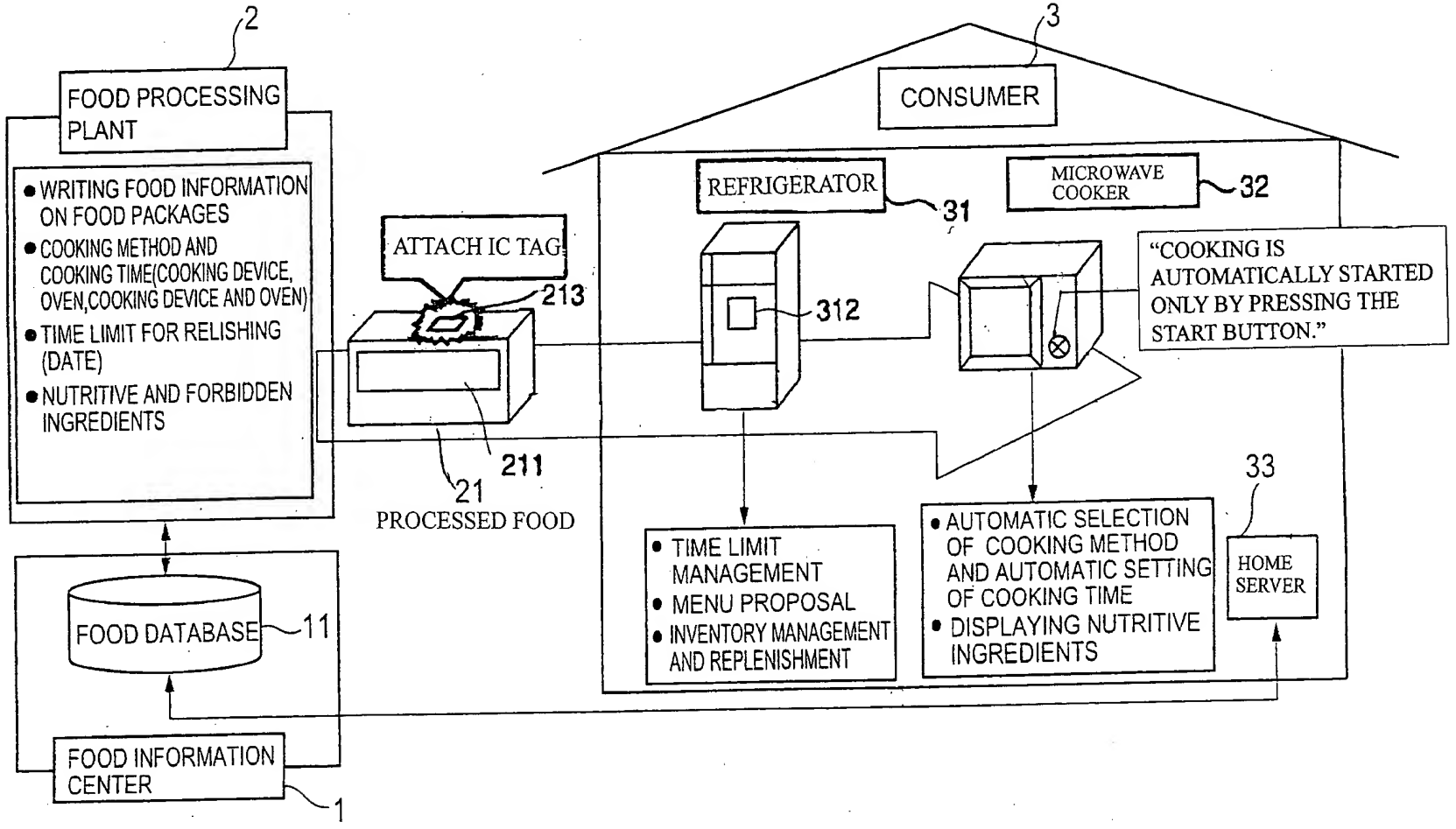
2
FOOD PROCESSING PLANT
• WRITING FOOD INFORMATION ON FOOD PACKAGES
• COOKING METHOD AND COOKING TIME(COOKING DEVICE, OVEN,COOKING DEVICE AND OVEN)
• TIME LIMIT FOR RELISHING (DATE)
• NUTRITIVE AND FORBIDDEN INGREDIENTS
ATTACH IC TAG
213
211
21
PROCESSED FOOD
3
CONSUMER
REFRIGERATOR
31
312
MICROWAVE COOKER
32
"COOKING IS AUTOMATICALLY STARTED ONLY BY PRESSING THE START BUTTON."
33
HOME SERVER
• TIME LIMIT MANAGEMENT
• MENU PROPOSAL
• INVENTORY MANAGEMENT AND REPLENISHMENT
• AUTOMATIC SELECTION OF COOKING METHOD AND AUTOMATIC SETTING OF COOKING TIME
• DISPLAYING NUTRITIVE INGREDIENTS
FOOD DATABASE
11
FOOD INFORMATION CENTER
1

Fig. 1

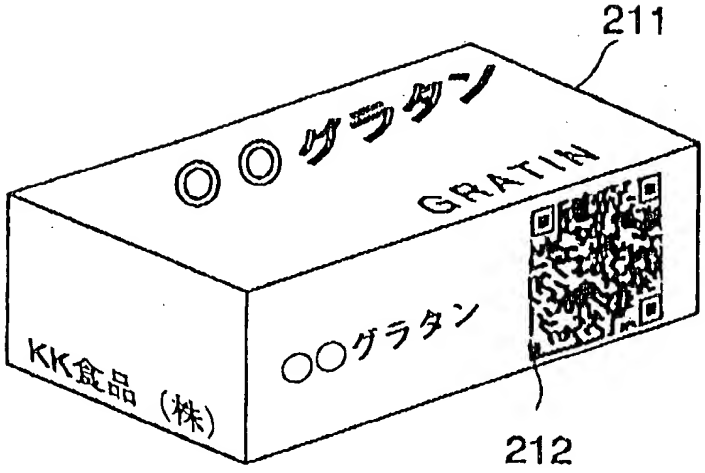
211
○○グラタン
GRATIN
○○グラタン
KK食品（株）
212

Fig. 2

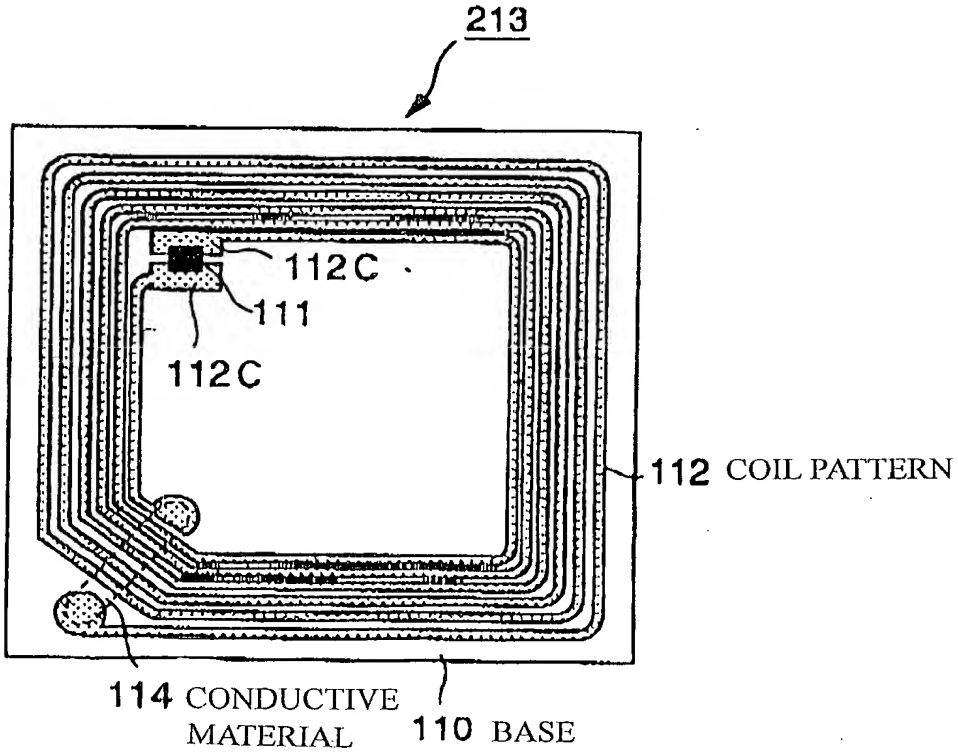
213
112C
111
112C
112 COIL PATTERN
114 CONDUCTIVE MATERIAL
110 BASE

Fig. 3

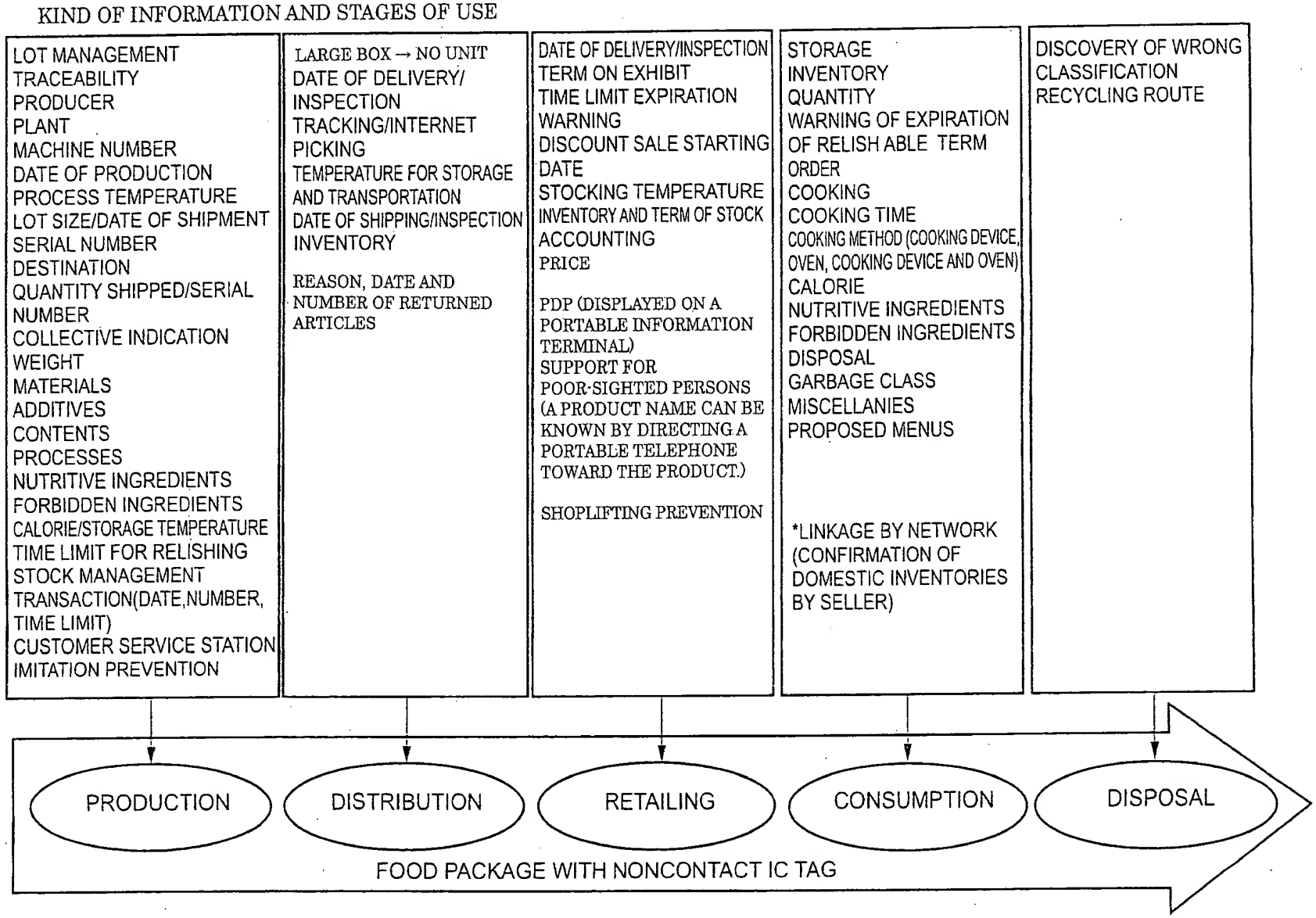
KIND OF INFORMATION AND STAGES OF USE
LOT MANAGEMENT
TRACEABILITY
PRODUCER
PLANT
MACHINE NUMBER
DATE OF PRODUCTION
PROCESS TEMPERATURE
LOT SIZE/DATE OF SHIPMENT
SERIAL NUMBER
DESTINATION
QUANTITY SHIPPED/SERIAL NUMBER
COLLECTIVE INDICATION
WEIGHT
MATERIALS
ADDITIVES
CONTENTS
PROCESSES
NUTRITIVE INGREDIENTS
FORBIDDEN INGREDIENTS
CALORIE/STORAGE TEMPERATURE
TIME LIMIT FOR RELISHING
STOCK MANAGEMENT
TRANSACTION(DATE,NUMBER, TIME LIMIT)
CUSTOMER SERVICE STATION
IMITATION PREVENTION
LARGE BOX → NO UNIT
DATE OF DELIVERY/ INSPECTION
TRACKING/INTERNET PICKING
TEMPERATURE FOR STORAGE AND TRANSPORTATION
DATE OF SHIPPING/INSPECTION
INVENTORY
REASON, DATE AND NUMBER OF RETURNED ARTICLES
DATE OF DELIVERY/INSPECTION
TERM ON EXHIBIT
TIME LIMIT EXPIRATION WARNING
DISCOUNT SALE STARTING DATE
STOCKING TEMPERATURE
INVENTORY AND TERM OF STOCK
ACCOUNTING
PRICE
PDP (DISPLAYED ON A PORTABLE INFORMATION TERMINAL)
SUPPORT FOR POOR-SIGHTED PERSONS (A PRODUCT NAME CAN BE KNOWN BY DIRECTING A PORTABLE TELEPHONE TOWARD THE PRODUCT.)
SHOPLIFTING PREVENTION
STORAGE
INVENTORY
QUANTITY
WARNING OF EXPIRATION OF RELISH ABLE TERM
ORDER
COOKING
COOKING TIME
COOKING METHOD (COOKING DEVICE, OVEN, COOKING DEVICE AND OVEN)
CALORIE
NUTRITIVE INGREDIENTS
FORBIDDEN INGREDIENTS
DISPOSAL
GARBAGE CLASS
MISCELLANIES
PROPOSED MENUS
*LINKAGE BY NETWORK (CONFIRMATION OF DOMESTIC INVENTORIES BY SELLER)
DISCOVERY OF WRONG CLASSIFICATION
RECYCLING ROUTE
PRODUCTION
DISTRIBUTION
RETAILING
CONSUMPTION
DISPOSAL
FOOD PACKAGE WITH NONCONTACT IC TAG

Fig. 4

[Document Type] ABSTRACT

[Abstract]

[Object]

To provide a cooking information and food information distribution and management system capable of retrieving necessary information from a database kept by a center when a processed food is cooked or used.

[Means for Solving the Problems]

A cooking information distribution and management system according to the present invention including a food database 11 constructed by accumulating pieces of information about cooking, nutritive ingredients, calorie and weight of processed foods, and an ID code added to each processed food 21 for identification thereof, is characterized in being capable of using the ID code added to the processed food as a key to retrieve necessary cooking information by inquiring of the above database for the information.

Similarly, the food distribution and management system according to the present invention is characterized in being capable of retrieving necessary food information from the database 11 when the processed food 21 is used.

[Selected Drawing]

Fig. 1